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CERAMBYCIDAE OF THE REVILLA GIGEDO ISLANDS

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The Revilla Gigedo Islands, like the Galápagos, 19° to the south, are oceanic and volcanic in origin, arid in climate, and widely separated from the mainland. Unlike the Galápagos, the Revilla Gigedos are only four in number, remote from each other, and arranged in an east–west, rather than a north–south, direction.

Cerambycidae are presently known from two of the islands, Socorro and Clarion (Linsley, 1935, 1942, 1958), based upon collections made by H. H. Keifer and J. R. Slevin as members of the California Academy of Sciences Expedition of 1925 (see Hanna, 1926), and by William A. MacDonald and D. C. Blodget who visited the islands in 1955. The objective of the present report is to summarize these findings and correct nomenclature which has been applied to the species, in order to permit meaningful comparisons with the cerambycid faunas of the Galápagos and Cocos islands.

Flora of the Revilla Gigedo Islands

The flora of the Revilla Gigedo Islands has been analyzed by Johnston (1931). He recognized 37 endemic and 79 nonendemic species and subspecies of plants. Of the nonendemic species, 80 per cent occur also in the Pacific States of Mexico north of Colima; the remainder are either widespread or have West Indian, southern Mexican, or Central American affinities. There are no endemic genera, but among the species, more than half appear to have southern, Galapagean, or West Indian affinities.

Host Plants and Affinities of Revilla Gigedo Cerambycidae

Four species of Cerambycidae have thus far been found on the Islands, two on Socorro and two on Clarion (table 1). Each of these populations is believed

Table 1. *Known Cerambycidae of Revilla Gigedo Islands.*

Name	*Locality*	*Date*	*Host Plant*
Stenodontes dasytomus socorrensis	Grayson Cove, Socorro Island	May	
Nesodes insularis	Clarion Island	May	*Sophora tomentosa, Sapindus sopolaria*
Acanthoderes socorrensis	Grayson Cove, Socorro Island	May	*Hippomane mancinella*
Acanthoderes peritapnoides	Clarion Island	May	*Sapindus sopolaria*

to be endemic at the level of species or subspecies and one is regarded as generically distinct from relatives elsewhere. The ancestors of these four species, by their affinities, might possibly have arrived on the islands from mainland sources on the North American continent (none show close relationship with known species from Cocos Island or the Galápagos). This is almost certainly true of *Stenodontes dasytomus socorrensis,* a population whose insular host is not yet known. Affinities of the other three species are less clear, and can best be discussed in relation to the plants which nourish the larvae.

Host plants have been recorded for three of the four Cerambycidae now known from the Archipelago. Although each of the populations is believed to be endemic, the known host plants comprise widespread species:

Sophora tomentosa Linnaeus (Leguminosae), one of the two recorded hosts for *Nesodes insularis* Linsley. This is a pantropical strand plant of the Old World and West Indies, occurring in the eastern Pacific only on Clarion Island. Here it is reported as growing in dense brush near the ocean, along the beach and on low hills directly behind it, as a shrub with a woody base (Johnston, 1931). *Nesodes insularis*—a flightless species—appears to have affinities with elaphidionine Cerambycidae of the West Indies and Gulf Coast of Mexico and Central America.

Sapindus sopolaria Linnaeus (Sapindaceae), an alternate host of *Nesodes insularis,* is widely distributed in the West Indies also, and occurs along the west coast of America from Baja California southward. It is reported to be the largest shrub on Clarion Island, growing in large thickets near the beach. Ranging from two to three meters in height, it is used as a nest site for the blue-footed boobie (Johnston, 1931). In addition to *Nesodes insularis,* it serves as host for *Acanthoderes peritapnoides*—a species whose phylogenetic affinities, although American, are not entirely clear.

Hippomane mancinella Linnaeus (Euphorbiaceae). This is a widespread shoreline species occurring throughout the West Indies and from southern Mexico (Oaxaca) to Ecuador. In the eastern Pacific, it is known from Socorro Island and the Galápagos. In Grayson Cove it is abundant in small groves, and serves as host for *Acanthoderes socorrensis,* a species with uncertain, but probably Mexican, affinities.

REVILLA GIGEDO CERAMBYCIDAE

Stenodontes dasytomus (Say).

Prionus dasytomus SAY, 1823, Jour. Acad. Nat. Sci. Philadelphia, vol. 3, p. 326.
Mallodon dasytoma, LECONTE, 1851, Jour. Acad. Nat. Sci. Philadelphia, ser. 2, vol. 2, p. 112.
Stenodontes (Mallodon) dasytomus, LAMEERE, 1902, Mem. Soc. Ent. Belgique, vol. 9, p. 77.
Stenodontes (Orthomallodon) dasytomus, LINSLEY, 1962, Univ. Calif. Publ. Ent., vol. 19, p. 19.

Color reddish brown to dark brown or blackish; surface shining, glabrous. Genae bidentate or tridentate; mandibles not strongly retracted at base, bluntly and broadly tridentate before apex. Antenna attaining basal third of elytra in male, shorter in female. Disk of pronotum with large, polished, sparsely punctate facets. Suture of elytra spinose. Length, exclusive of mandibles, 23–50 mm.

TYPE LOCALITY. Lower Missouri River.

RANGE. Northern South America to southern United States.

Two subspecies are presently recognized, the nomino-typical form occurring in the southern United States and northern Mexico and *S. d. masticator* (Thomson) from South America to southern Arizona.

The population on the Revilla Gigedo Islands appears to be subspecifically distinct from each of those on the mainland.

Stenodontes dasytomus socorrensis Linsley and Chemsak, new subspecies.

Stenodontes (Mallodon) molarius LINSLEY (not Bates), 1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, p. 83.

Color brown to dark brown. Genae tridentate (third tooth usually vague); gula coarsely, longitudinally rugose. Pronotum with large polished facets usually reunited posteriorly, punctures between facets fine, confluent. Elytra finely and sparsely wrinkled appearing near base. Length, exclusive of mandibles, 30–48 mm.

HOLOTYPE ♂, allotype ♀, and 8 ♂ paratypes from Grayson Cove, Socorro Island, May 4, 1925 (J. R. Slevin) and May 11, 1925 (H. H. Keifer), in the collections of the California Academy of Sciences, San Francisco.

This subspecies differs from the nomino-typical form by the tridentate genae, paler brown color, and finer discal punctures of the pronotum. The smaller polished facets and confluent punctation of the pronotum and the slight wrinkling of the elytra distinguish it from *masticator*.

Nesodes insularis Linsley.

Nesodes insularis LINSLEY, 1935, Pan-Pacific Ent., vol. 11, p. 74, fig.; Linsley, 1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, p. 83.

Dark brown, irregularly clothed with white, recumbent pubescence. Antennae unarmed, densely pubescent. Prothorax densely punctate with a median glabrous callus; pubescence condensed into irregular white patches. Elytra coarsely, not closely punctured, densely clothed with recumbent white pubescence. Length 11–18 mm.

Type locality. Clarion Island.

Flight period. May.

Host plants. *Sophora tomentosa, Sapindus sopolaria.* The adults bore into the pith of living plants of the host.

This species is distinctive among the Elaphidionini by the absence of spines on the antennae, elytral apices, and femora, the reduced hind wings, and the large prothorax.

Acanthoderes socorrensis Linsley.

Acanthoderes socorrensis Linsley, 1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, p. 84, pl. 5, fig. 5.

Acanthoderes peninsularis Linsley (not Horn), 1935, Pan-Pacific Ent., vol. 11, p. 74.

Color of integument brown, pubescence dense, appressed, variegated golden and brownish. Pronotum with a large lateral conical tubercle, disk with a narrow glabrous callus extending from base to apex and two pubescent calluses before middle. Elytra finely clothed with golden, pale, and yellowish brown pubescence with an obscure, pale, oblique fascia extending from behind humeri nearly to suture; apices emarginate. Length, 12–14.5 mm.

Type locality. Grayson Cove, Socorro Island.

Host plant. Specimens were reared from *Hippomane mancinella* in May.

Acanthoderes peritapnoides Linsley.

Acanthoderes peritapnoides Linsley, 1958, Bull. So. Calif. Acad. Sci., vol. 57, p. 49, pl. 16.

Form short, robust, color piceous black, antennae, legs, dorsum of head, disk of pronotum, and some sterna reddish; surface subglabrous, pubescence sparse. Pronotum with large lateral tubercles. Elytra with apices and oblique antemedian impressions reddish; coarse punctures sparsely scattered over surface; apices subtruncate. Length, 11.5 mm.

Type locality. Clarion Island.

Host plant. Reared from *Sapindus sopolaria* in May.

The subglabrous integument, piceous coloration, and less robust form will separate this species from *A. socorrensis.*

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